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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,828	03/31/2004	Alfred Tondreau	DMF-227-B	5069

7590 04/30/2007
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EXAMINER

CECIL, TERRY K

ART UNIT	PAPER NUMBER
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1723

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/813,828

Applicant(s)

TONDREAU ET AL.

Examiner

Mr. Terry K. Cecil

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1-29-2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Because of applicant's replacement drawings and his amendments to the specification, the drawing objections of the prior office action have been withdrawn.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the *first paragraph* of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Though applicant has support for a larger volume that is greater than a smaller volume, support is NOT found for the specific ratio of a lower and upper volume to be at least 2.7. Such is considered to be new matter.

3. The following is a quotation of the *second paragraph* of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are indefinite because of the following:

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- It is unclear if applicant equates "substantially" with "about" or "approximately" (claims 1 and 11).
- Claims 2-10 and 12-20 are rejected since they suffer the same defects as the claims from which they depend.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

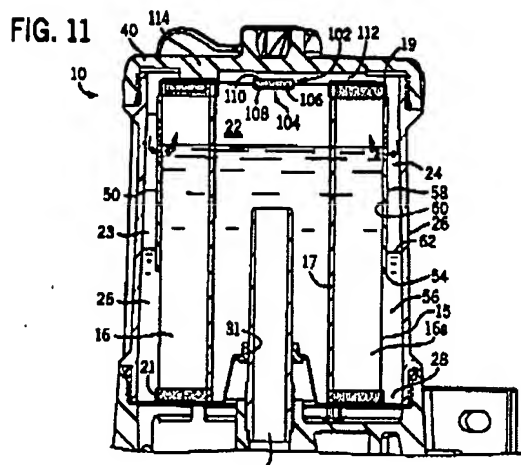
A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Prater et al. (U.S. 6,641,742).



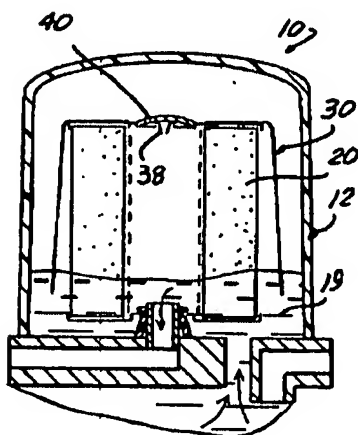
Prater discloses a filter apparatus for filtering diesel fuel [as in claim 4] including a transparent outer housing 26, a filter element, a cover 50 covering the upper portion of the element a relief valve 102 in the top of the element, wherein the cover is completely impervious (col. 6, lines 64-65). The apparatus is

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configured such that upon reaching a predetermined differential pressure across the filter element the relief opens to allow fluid to flow therethrough. The resulting change in liquid level between the cover and the transparent housing is indicative of the need for filter replacement.

Concerning the phrases in the claim “for filtering a highly pressurized fluid” or “for communicating a highly pressurized fluid into the housing”, it is pointed out that the phrases are considered to be intended uses of the apparatus that fail to further limit the structure thereof. The claims do not require a pump either upstream or downstream of the filter (as argued), and regardless of the pressure of the incoming fluid, the relief valve will open at a designated pressure differential. The characteristics of the gas on the inlet side of the filter is governed by the ideal gas equation $PV=nRT$ and would necessarily effect the opening of the valve. The claims do not specify where each of the lower and upper volumes begin and end such that the ratio therebetween is at least 2.7. Therefore, the examiner chooses whatever demarcation between two “volumes” would result in a lower volume being 2.7 times greater than an upper volume.

7. Claims 1, 4, 7, 11, 14 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by



Smith et al. (U.S. 6,841,065). Smith discloses a filter apparatus for filtering diesel fuel or oil [as in claims 4, 7, 14 and 17] that includes a transparent outer housing 12, a filter element 20, an impervious cover 30 covering the upper portion of the element a relief valve 38. Smith states that the fluid can either be drawn into the inlet *or pushed*. As for the phrase “highly pressurized

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fluid”, such is considered to be an intended use for the apparatus and as for the method claims, it is pointed out that “highly” is a relative term such that the examiner considers the fluid that is “pushed” into the apparatus to be “highly pressurized” in relation to fluid that is drawn (a negative pressure). As in the previous rejection, the characteristics of the gas on the inlet side of the filter is governed by the ideal gas equation $PV=nRT$ and would necessarily effect the opening of the valve. Also, the claims do not specify where each of the lower and upper volumes begin and end such that the ratio therebetween is at least 2.7. Therefor, the examiner chooses whatever demarcation between two “volumes” would result in a lower volume being 2.7 times greater than an upper volume, even if such demarcation is a cylindrical space extending about the valve between the cover portion atop the filter element and the inner surface of the top of the housing.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

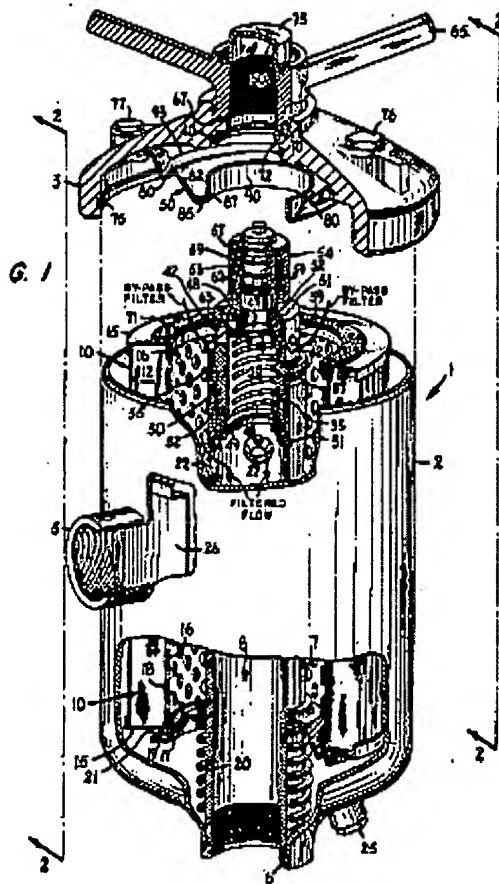
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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9. Claims 1-2, 3-9, 11-12 and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper (U.S. 3,508,657) in view of *either* Prater OR Smith.



Cooper teaches a filter apparatus for filtering high pressure fluids including an inlet 5, an outlet 6, a filter element 10, a relief valve for bypass flow and an indicator of bypass flow including a transparent cap 73 at a top of the apparatus. Cooper does not teach an outer cover for the filter nor a configuration wherein the level of fluid in the housing serves as a visual indication that bypass flow has occurred.

As explained above, both Prater and Smith teach a filter including an outer cover and transparent housing for determining the opening of a relief valve for bypass flow by visually observing the level of fluid in the

housing. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the filter element cover, and transparent housing/visual indicating configuration of either of Prater or Smith, such both teach the benefit of accurately reflecting filter life.

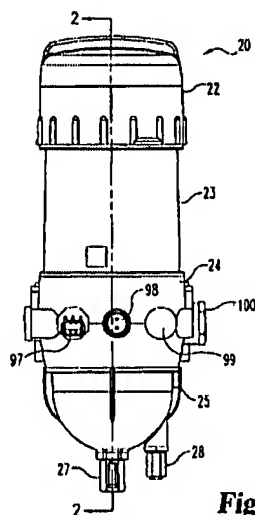
As for claims 5, 8, 15 and 18, concerning the P of the fluid such is considered to be obvious depending upon the system in which the filter is to operate, as well as the "preset" pressure

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differential value in which the relief valve is to open. As for claims 6, 9, 16 and 19, since the ideal gas equation $PV=nRT$ is well known to the skilled man, merely determining the V of the air pocket necessary for the fluid level indication is within ordinary skill by solving the equation for V.

Claims 2 and 12 are obvious depending upon the desired operating pressure (which depends upon the system in which the filter will be used) and necessary volume for fluid level indication.

10. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of Smith or Prater in view of Jiang et al. (U.S. 6,939,464 B1).

**Fig. 1**

Jiang teaches ribs on the outer surface of his housing cover [as in claims 3 and 13]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to such ribs on the outer housing surface of Prater since such would increase friction when producing a rotating motion to remove or replace the cover. The covers of both Prater and Jiang include threads. The structure of the ribs would inherently provide support to the part of the housing covered thereby.

Response to Arguments

11. Applicant's arguments filed 1-29-2007 have been fully considered but they are not persuasive because of the following reasons:

- Applicant's arguments concerning the location of a pump is unconvincing, since the claims do not require a pump—either upstream or downstream.
- Applicant argues that his invention is different from that of Smith or Prater, since his claims require fluid to be supplied under “high” pressure. However, it is pointed out that “high” is a relative term such that a fluid supplied under any pressure is considered to be high pressure relative to fluid supplied under vacuum pressure.
- Since the fluid pressure is determined by the system in which the filter is to be used, designing the housing to have the necessary volume of air in a pocket in the upper part of the filter for fluid level indication is within ordinary skill since the ideal gas equation $V=nRT/P$ is a well known characteristic of gases.
- Despite applicant's remarks to the contrary, the housing cap of Jiang is still considered part of the housing (e.g. a housing cover).

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

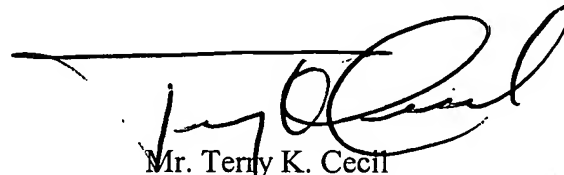
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the

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mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (571) 272-1138 at the Carlisle campus in Alexandria, Virginia for any inquiries concerning this communication or earlier communications from the examiner. Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:30a to 4:30p, on at least four days during the week M-F.
- Steve Griffin, the examiner's supervisor, can be reached at (571)272-1189 if attempts to reach the examiner are unsuccessful.
- The Fax number for this art unit for official faxes is (571) 273-8300.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mr. Terry K. Cecil
Primary Examiner
Art Unit 1723